

Xerox Docket No. D/99052
Application No. 09/450,185

Amendments to the Claims:

PROPOSED

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An image quality analysis system for an image output device, comprising:

a test pattern pertinent to image quality determination;

a scanner that scans a hardcopy test image, which has been generated by the output device based on the test pattern, to form a digital raster image; and

an image quality analysis module that receives the digital raster image, distinguishes one or more test targets from the digital raster image, and performs image quality analysis on the test targets to obtain results quantifying image quality in which the results correlate with image quality deviations perceivable ~~only~~ by a human observer,

wherein the image quality analysis module includes a human visual filter that filters the test targets so that the test targets are similar in resolution to that perceivable by a human visual system and wherein the image quality analysis module only identifies image quality deviations that are perceivable by the human observer.

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2. (Canceled)
3. (Original) The image quality analysis system of claim 1, wherein the image quality analysis module resides locally at a site of the image output device.
4. (Original) The image quality analysis system of claim 3, wherein the image output device is a copier that contains the scanner.
5. (Original) The image quality analysis system of claim 1, wherein the scanner and the image quality analysis module reside remote from the image output device.

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6. (Original) The image quality analysis system of claim 1, wherein the test pattern is stored in memory at the image output device.

7. (Original) The image quality analysis system of claim 1, wherein the image output device is a copier having an input scanner section serving as the scanner and an output printer section, and the test pattern is in the form of a hardcopy printout that is subsequently scanned into the input scanner section and output as the hardcopy test image.

8. (Canceled)

9. (Currently Amended) The image quality analysis system of claim 1, further comprising a communication module that connects the image quality analysis module to a remote facility and the results of the image quality analysis are transmitted to the remote facility through the communication module.

10. (Original) The image quality analysis system of claim 9, wherein the remote facility includes a diagnostic module that returns information pertinent to correcting any undesirable image quality test results.

11. (Original) The image quality analysis system of claim 1, wherein the image quality results are independent of the particular image output device or scanner used, such that comparisons of results can be made between differing image output devices.

12. (Currently Amended) A method of performing image quality analysis on an image output device having an output station that generates a hardcopy image from a digital image, the method comprising:

generating a hardcopy image output from the image output device based on a predetermined test pattern;

scanning the hardcopy image using a scanner to form a digital raster image;

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identifying test targets within the digital raster image using pattern recognition

software;

filtering the test targets using a human visual perception model so that the test targets have a resolution similar to that perceivable by a human visual system; and

performing image quality analysis on the filtered test targets so that the image quality analysis provides image quality results that correlate with image quality deviations perceivable ~~only~~ by a human observer so that only image quality deviations perceivable by the human observer are identified.

13. (Canceled)

14. (Original) The method of claim 12, further comprising a step of sending a communication to a service facility.

15. (Original) The method of claim 14, wherein the communication is a service call if the image quality results as less than desirable.

16. (Original) The method of claim 14, wherein the communication is the transfer of the image quality results to the service facility.

17. (Original) The method of claim 16, further comprising the steps of analyzing the results along with predetermined image output device operating parameters and communicating information to the image output device relevant to correcting the undesirable image quality.

18. (Original) The method of claim 12, wherein the image output device is a copier that contains the scanner.

19. (Original) The method of claim 12, wherein the method is automatically initiated by the copier at a predetermined time.

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20. (Original) The method of claim 12, wherein the steps of scanning and analyzing are performed remote from the image output device.

21-22. (Canceled)

23. (New) The image quality analysis system of claim 1, wherein the image quality analysis module obtains a specific user threshold representing a degree of image quality degradation acceptable to the specific user, and the image quality analysis results are based on this specific user threshold.

24. (New) The image quality analysis system of claim 23, wherein the image quality analysis module determines whether corrective action is needed for the image output device based on the specific user threshold.

25. (New) The method of claim 12, further comprising the steps of:
obtaining a specific user threshold representing a degree of image quality degradation acceptable to the specific user; and
the step of performing image quality analysis results is based on this specific user threshold.

26. (New) The method of claim 25, further comprising a step of determining when corrective action is needed for the image output device based on the specific user threshold.

27. (New) The image quality analysis system of claim 1, wherein the image quality analysis module determines whether corrective action is needed for the image output device based on the correlated results so that corrective action takes into account human perceivable image quality traits.

28. (New) The method of claim 12, wherein the image quality analysis module determines whether corrective action is needed for the image output device based on the

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correlated results so that corrective action takes into account human perceivable image quality traits.

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